

Applicant : Robert Johan Joseph Hageman, et al.  
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**AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended): A nutritional or pharmaceutical composition for use in mammals comprising: a) a protein fraction containing peptides and proteins containing L-serine; and b) an energy metabolism precursor wherein the energy metabolism precursor is glycocyamine (GA); guanidine-acetic acid salts of sodium, potassium, calcium, ammonium, magnesium, zinc, iron, copper, chromium and mixtures thereof and/or GA bidentate with zinc to a maximum of 100 mg zinc per daily dose of the total composition; esters of acetic acid, propionic acid, butyric acid, and mixtures thereof; or compounds where the amidino group of the GA is modified by protonation and thus forms a salt, wherein the composition is free of glycine or if glycine is present within the composition, the weight ratio of L-serine to glycine after hydrolysis of the composition is more than 2.7:1 as determined by performing hydrolysis of the final product or mixture.

2-17 (canceled)

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18. (previously presented): The composition according to claim 1, wherein the molar amount of energy metabolism precursor lies within the range of from 0.1 to 10 times the excess of L-serine versus glycine.

19. (previously presented): The composition according to claim 1, wherein the composition further comprises creatine.

20. (previously presented): The composition according to claim 19, wherein the energy metabolism precursor and creatine are present within the composition in a weight ratio of at least 0.2:5.

21. (previously presented): The composition according to claim 1, wherein the composition further comprises vitamins selected from the group consisting of vitamin B6, vitamin B12 and folic acid.

22. (previously presented): The composition according to claim 1, wherein the composition further comprises a digestible food grade carbohydrate.

23. (previously presented): The composition according to

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claim 1, wherein the composition further comprises an aldehyde.

24. (previously presented): The composition according to claim 1, wherein the composition further comprises a mineral selected from the group consisting of magnesium and zinc.

25. (previously presented): The composition according to claim 1, wherein the composition is in a form selected from liquid form, powder form, emulsion form, suspension form, gel form, bar form, cookies, and sweets.

26. (withdrawn): A method for increasing the creatine response within mammalian muscle and methylation reaction capacity in a mammal in need thereof, comprising administering to said mammal an effective amount of the composition according to claim 1.

27. (withdrawn): The method according to claim 11, wherein the energy metabolism precursor is administered at a daily dosage of at least 0.2 g up to 4 g.

28. (withdrawn): The method according to claim 11, wherein

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the composition is a nutritional or pharmaceutical supplement and wherein the protein fraction containing L-serine is administered at a daily dosage of at least 1 g.

29. (withdrawn): The method according to claim 11, wherein the composition is a complete nutritional or pharmaceutical composition and wherein the protein fraction containing L-serine is administered at a daily dosage of at least 4.8 g.

30. (withdrawn): The method according to claim 11, wherein the mammal is an athlete.

31. (withdrawn): The method according to claim 11, wherein the mammal is a disease-affected persons, a vegetarian person, or an elderly person.

32. (withdrawn): The method according to claim 11 for the stimulation and/or increase of anabolic processes and/or the providing of an increase of the lean body mass, and/or prevention and/or treatment of muscle catabolism or even cachexia and/or for the improvement of the energy status of tissues and cells.

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33. (withdrawn): The method according to claim 11, for the prevention and/or treatment of disorders selected from the group consisting of cancer, neurological disorders, migraine, allergy, insulin resistance which improves glucose tolerance and decreases side effects of diabetes type II, cardiovascular and cerebrovascular disorders, hypercholesterolaemia, hypertension, subfertility, uncontrolled inflammation processes, pneumonia, hearing loss, wound healing, gut barrier function and sepsis.